

# Provincial Carbapenemase-Producing Organism (CPO) Action Plan in British Columbia, 2024-2028 – *Condensed Overview*



BC Centre for Disease Control  
Provincial Health Services Authority



First Nations Health Authority  
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## *First Nations Land Acknowledgement*

*PICNet wishes to acknowledge with gratitude that we work and live on the traditional, ancestral and unceded territories of many B.C. First Nations who have cared and nurtured this land for all time. PICNet's office is located on the traditional land of the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and səliłwətał (Tseil-Waututh) Nations. We also acknowledge that there are other Indigenous people that live on these lands that originate from their own respective territories outside of these lands, the Chartered Communities of the Métis Nation B.C., and Inuit.*

# EXECUTIVE SUMMARY

Carbapenemase-producing organisms (CPO) are a major concern in health care because they are resistant to powerful antibiotics, leaving limited treatment options. When people are colonized with CPO and have no symptoms, they can unknowingly transmit to others, especially in hospitals and long-term care facilities where there are vulnerable patients with risk factors and outbreaks can occur. Antimicrobial resistance (AMR) is recognized by the World Health Organization (WHO) as one of the top global health threats of our time due to the rise of antibiotic-resistant bacteria, including CPO. AMR contributed to more than 5 million deaths in 2019.

PICNet collaborates with various partners, notably Infection Prevention and Control (IPC) programs in the health authorities and BC Centre for Disease Control (BCCDC) Public Health Laboratory, to generate provincial surveillance of CPOs. Provincial surveillance data in British Columbia (BC) has revealed important shifts in the epidemiology of CPO cases in recent years. Provincial surveillance of CPO began in 2014. The CPO rate was 1.0 cases in 2014/15 and most recently reached 7.7 cases in 2023/24 per 10,000 hospital admissions.

Increasing cases of CPO with a reported history of local health-care encounters and increasing proportions of community cases signal that local transmission dynamics may now play a more significant role in CPO transmission. CPO is becoming more prevalent, underscoring the importance of tackling CPO in BC and better understanding the endemic potential of these organisms.

For the past 10 years there has been advancements to address CPO in the province including the launch of provincial surveillance and reporting (2014/15), commencement of CPO genomics (2016), development and implementation of a CPO toolkit (2018), and numerous meetings and symposiums to discuss and advance provincial CPO surveillance and case management. However, in recent years, the IPC community recognized a ‘call to action’ and came together at the Provincial CPO Symposium in 2023. This event convened key partners across the health authorities, Ministry of Health (MoH), BC Centre for Disease Control (BCCDC) Public Health Laboratory (PHL) and others, to collaboratively define shared aspirations, formalize commitments, and make strategic decisions to collectively address CPO in health care settings in BC. These collective efforts culminated in the comprehensive action plan now articulated herein.

This CPO Action Plan sets 3 goals that direct and drive efforts to address CPO in the province.

Reduce	Improve	Optimize
Reduce transmission of CPO in health care	Improve knowledge of CPO	Optimize the patient experience

There are three core components and corresponding objectives for surveillance and monitoring; evidence-informed IPC best practices and knowledge translation; and research, evaluation and knowledge dissemination.



### **Surveillance and Monitoring**

1. Modernize CPO data and analytics
2. Improve provincial CPO surveillance reports
3. Increase knowledge of CPO epidemiology
4. Identify and monitor risk factors
5. Improve provincial CPO transmission notification processes



### **IPC Best Practices and Knowledge Translation**

1. Promote standardized provincial IPC best practices for CPO
2. Increase awareness and knowledge of CPO
3. Improve the patient experience for people with CPO
4. Mitigate risk factors for CPO



### **Research, Evaluation and Knowledge Dissemination**

1. Conduct CPO research and quality improvement initiatives
2. Disseminate findings through presentations and publications
3. Explore planetary health impacts related to CPO
4. Conduct an evaluation of the CPO action plan

The Provincial CPO action plan explains the collective action required to reduce transmission and address CPO in health care settings in BC by:

- standardizing health care workers (HCWs) knowledge and implementation of best practices for equitable care and improved patient safety across all health care settings
- empowering patients and families through educational resources that enable them to understand infection risks and carry out prevention strategies
- improving patient outcomes (decreased morbidity and mortality)
- avoiding system costs (e.g. shorter hospital stays, lower readmission rates, improved recovery times, reduced PPE use, reduced antibiotic treatment, fewer critical care admissions, etc.)